Country : RUMANIA
Category : Analytical Chemistry. Analysis of Organic Substances E
Abs. Jour : Ref Zhur - Khim., No 5, 1959, No. 15135
Author :
Institut. :
Title :

Orig Pub. :

Abstract Cont'd : is saturated with butyl alcohol vapors, saturated with a 2 n. solution of HCl. The chromatogram is developed for 16-20 hours with this solvent, dried, and moistened with a 0.1 n. I_2 solution in a KCl solution. It was established that the mixture named above contains four components: γ-picoline, α-picoline, and two unidentified homologs of pyridine. The content of each component is determined by the surface of the corresponding spot or by means of special analytical methods.-- B. Manole

Card: 2/2

L 29773-66 EWP(j)/T DS/WW/RM

ACC NR: AP6020885 SOURCE CODE: RU/0003/65/016/009/0424/0427

AUTHOR: Gunesch, H.; Brandsch, J. 39 B

ORG: Chemical Works, Risnov (Uzinele Chimice)

TITLE: Concerning the protective-colloid power of polyvinyl alcohol

SOURCE: Revista de chimie, v. 16, no. 9, 1965, 424-427

TOPIC TAGS: polyvinyl alcohol, colloid chemistry

ABSTRACT:
The authors suggest two methods to determine the protecting-colloid ability of polyvinyl alcohol, and present experimental results showing that this protecting ability in the polymerization of vinyl acetate can only be defined in terms of the specific composition and polymerization conditions of a particular reaction. Orig. art. has: 2 figures and 9 tables. [Based on authors' Eng. abstract] [JPRS]

SUB CODE: 07 / SUBM DATE: none / ORIG REF: 001 / OTH REF: 005
SOV REF: 001

Card 1/1

UDC: 678.744.72.01:541.183.611:678.744.112

GUNESCH, H.; BRANDSCH, J.; HEITZ, Jutta; BOTEIU, Aurelia; LOFFLER, Ana

Determination of the crotonic aldehyde from monomer vinyl acetate and its effect on the emulsion polymerization process. Rev chimie Min petr 14 no.1:36-39 Ja '63.

1. Laboratorul central al Uzinelor chimice-Risnov.

BERANOVA, H.; BRANDSHTETR, I.; DRUIN, V.; YERMAKOV, V.; ZVAROVA, T.; KZHIVANEK, M. (Krzywanek, M.); MALY, Ya. (Maly, J.); POLIKANOV, S.; SU HUNG-KUEI

Synthesis of ^{256}Md as a result of irradiating ^{238}U with ^{22}Ne ions and research on some of its chemical properties. Nukleonika 7 no.7/8:465-471 '62.

1, Ob"yedinennyy institut yadernykh issledovaniy, Dubna, Laboratoriya yadernykh reaktsiy.

TAUBE, M.; GVUZD', Ye. (Gwozdz, E.); GAVRILOV, K.A.; MALY, Ya. (Maly, J.); BRANDSHTETR, I.; VAN TUN-SEN ['Wang T'ung-Seng]

Extraction of mendelevium and fermium in the TBP—HNO_3 system. Nukleonika 7 no.7/8:479-482 '62.

1. Ob"yedinennyy institut yadernykh issledovaniyi, Dubna, Laboratoriya yadernykh reaktsiy.

BRANDSHTETR, I.; KRZHIVANEK, M.; MALYY,Ya.; SU KHUN-GUY [Su Hung-kuei]; SARANTSEVA, V.R., tekhn. red.

[Products of the reactions of heavy elements with multiply charged ions] Izuchenie produktov raktsii tiazhelykh elementov s mnogozariadnymi ionami. Part 1. [Radiochemical determination of Ac^{225} and Ac^{226} produced in the irradiation of uranium and thorium with nitrogen or neon ions] Radiokhimicheskoe opredelenie Ac^{225} i Ac^{226}, voznikaiushchikh pri obluchenii urana i toriia ionami azota ili neona. Dubna, Ob"edinennyi in-t iadernykh issledovanii, 1962. 12 p. (MIRA 15:6)
(Nuclear reactions) (Ions) (Actinium)

TAUBE, M.; GVUZD', Ye.; GAVRILOV, K.A.; MALY, Ya.; BRANDSHTETR, I.; VAN TUI-SEN; SARANTSEVA, V.R., tekhn. red.

[Extraction of fermium and mendelevium in the tributyl phosphate-nitric acid system] Ekstraktsiia fermiia i mendeleviia v sisteme TBF - HNO_3. Dubna, Ob"edinennyi in-t iadernykh issledovanii, 1962. 6 p. (MIRA 15:7)

(Fermium) (Mendelevium)

ACCESSION NR: AP4009947 S/0186/63/005/006/0694/0699

AUTHOR: Brandshtetr, I.; Zvarova, T. S.; Krzhivanek, M.; Maly*, Ya.

TITLE: Chromatographic separation of rare-earth elements and certain actinides on cation-exchange resin in the presence of radioactive isotopes precipitated with LaF sub 3

SOURCE: Radiokhimiya, v. 5, no. 6, 1963, 694-699

TOPIC TAGS: multicharge ions, rare-earth elements, actinides, radio-elements, a-active isotopes, gadolinium, gadolinium numbers, cation-exchange resin, lactate, Dow-X resin, lanthanum, actinium, ammonium lactate, elution, chromatographic separation

ABSTRACT: The experiments revealed that the coefficients of element separation on Dow-X resin 50x12 are different from those cited in literature. The gadolinium numbers and coefficients of rare-earth and actinide separation were determined, as well as the elution place of a-active elements which can model actinides on the resins used in this work. The gadolinium numbers of Md and Fm were determined by the

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ACCESSION NR: AP4009947

methods described by G. Beranova et al. (Nucleonika, 7, 7/8, 465, 1962). The resulting data on Dow-X resin 50x12 show that the element-separation factors in all cases are somewhat different from those cited in literature although results of earlier experiments with American-made Dow-X 50x12 resin did agree with the published figures. It appears, therefore, that the gadolinium number is not an invariable characteristic of a given brand of resin. The place of elution has been determined in the chromatographic separation of the series of a-active elements which can hinder the determination of the trans-uranium elements. "In conclusion, the authors express their gratitude to V. A. Yermakov and Su Hun-Gui for their assistance in the experiments." Orig. art. has: 2 figures and 3 tables.

ASSOCIATION: none

SUBMITTED: 03May62 DATE ACQ: 07Feb64 ENCL: 00

SUB CODE: CH, EL NO REF SOV: 006 OTHER: 006

Card 2/2

BRANDSTEIN, L.

PALOCZ, I;BRANDSTEIN, L.

Measurement of vesical tension without contra-pressure.
Magyar Sebeszet 3 no.3:249-250 1950. (CLML 20:1)

1. Of the Urological Clinic (Director -- Dr. Antal Babics, -- University Professor Lecturer), Peter Pazmany University.

BRANDSTEIN, L.

BINDER, L.;BRANDSTEIN, L.

Interstitial, plasma cell pneumonia. Magy. radiol. 5 no.4:158-161 Nov 1953. (CIML 25:5)

1. Doctors. 2. Roentgen Department (Head Physician -- Dr. Vince Augusztin) and Prosectorium (Head Physician -- Dr. Viktor Faber), Laszlo Metropolitan Hospital (Director -- Dr. Pal Ferencz).

BRANDSTEIN, L.

CSILLAG, A.; BRANDSTEIN, L.; FABER, V.; MACZO, J-ne.

On the pathogenesis of interstitial pneumonia in the newborn. Orv. hetil. 94 no.47:1303-1304 22 Nov 1953. (CLML 25:5)

1. Doctor for Csillag, Brandstein, and Faber; Technical Collaborator for Maczo. 2. National Institute of Public Hygiene (Director General -- Academician Andras Havas), and Prosectorium of Laszlo Metropolitan Hospital (Director -- Dr. Pal Ferencz).

BRANDSTEIN, L.

Csillag, A. Role of a blastomyces species in the genesis of interstitial pneumonia of the premature infant; a preliminary report. In English. p. 525.
ACTA MICROBIOLOGICA, Budapest, Vol. 1, no. 4, 1954.

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, no. 10, Oct. 1955, Uncl.

BRANDSTEIN, L.

CSILLAG, A.; BRANDSTEIN, L.

The role of Blastomyces in the etiology of intersititial plasmocytic pneumonia of the premature infant. Acta microb. hung. 2 no.1-2: 179-190 1954.

1. State Institute for Public Health and Laszlo Hospiral, Budapest.
(PNEUMONIA, in inf. & child
interstitial plasma cell, caused by Blastomyces in premature)
(INFANT, PREMATURE, dis.
pneumonia, interstitial plasma cell, caused by Blastomyces)
(LUNGS, dis.
blastomycosis in premature)
(BLASTOMYCOSIS,
lungs in premature)

BRANDSTEIN, Laszlo, dr.; CSILLAG, Anna, dr.

Experimental interstitial plasma cell pneumonia in sucking mice.
Orv. hetil. 95 no.37:1003-1006 12 Sept 54.

1. A Budapesti Laszlo Korhaz (igazgato: Ferenc Pal dr.) prosectura-janak (foorvos: Matko Laszlo dr.) es az Orszagos Kozegeszsegugyi Intezet (fogazgato: Havas Andras dr akademikus) kozlemenye.
(PNEUMONIA, exper.
interstitial plasma cell in mice)

SZENTPETERY, Bodog, dr.; BRANDSTEIN, Laszlo, dr.

Interesting complication of femoral arteriography. Magy. radiol. 15 no.3:152-155 Je '63.

1. A Fovarosi Tanacs Laszlo korhaza kozlemenye.
(ANGIOGRAPHY) (FEMORAL ARTERY) (EMBOLISM)

HUNGARY

BRANDSTEIN, Laszlo, Dr, LOBLOVICS, Ivan, Dr, HOLICS, Klara, Dr; Tetenyi Ave Hospital, Surgical and Pathoanatomical Wards (Tetenyi Uti Korhaz, Sebeszeti es Korbonctani Osztaly).

"Invaginations of the Small Intestines in Adults."

Budapest, Orvosi Hetilap, Vol 104, No 24, 16 June 1963, pages 1130-1131.

Abstract: The authors discuss three cases of invagination of the small intestine. They were caused by a fibroma, a lipoma and polyposis, respectively. In adults, the disease is usually due to demonstrable pathological changes, mostly tumors. The changes can be diagnosed by detailed passage examinations and surgical removal of tumors might prevent the development of invagination.

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1/1

HUNGARY

BRAUNSTEIN, Laszlo, Dr; Capital City Council VB. Tetenyi Ave Hospital, I. Surgical Ward (Fovarosi Tanacs VB. Tetenyi ut Korhaz, I. Sebeszeti Osztaly).

"Pancreatitis with Necrosis in Children."

Budapest, Orvosi Hetilap, Vol 109, No 10, 10 Mar 1968, pages 460-461.

Abstract: [Author's Hungarian summary] Based on the case discussed, the author calls attention to the fact that pancreatitis with necrosis is not the disease of the elderly exclusively, it can occur in children. The literature shows an increase of such cases. In the diagnosis of acute abdominal catastrophes in children, pancreatitis has to be considered. In well fed children, repeated strong pain under the right costal margin following fat meals could be indicative of cholelithiasis. 1 Hungarian, 16 Western references.

1/1

HUNGARY

BRANDSTEIN, Laszlo, Dr, GREGUSS, Sandor, Dr, LITTMANN, Imre, Dr, MATE, Karoly, Dr; Capital City Council Executive Committee Tetenyi Ave Hospital, I. Surgical, Neurological and III. Medical Wards (Fovarosi Tanacs VB. [Vegrehajto Bizottsag] Tetenyi Uti Korhaz, I. Sebeszet, Idegosztaly es III. Belosztaly).

"Organic Hyperinsulinism Diagnosed as Epilepsy for Several Years (Pancreatic Islet-Cell Adenoma)."

Budapest, Orvosi Hetilap, Vol 104, No 30, 28 July 63, pages 1416-1418.

Abstract: [Authors' Hungarian summary] The authors report a case of organic hyperinsulinism which, for years, has been diagnosed as epilepsy. The hyperinsulinism resulted from a plum-sized islet-cell adenoma located in the head of the pancreas. After removal of the adenoma, the blood sugar level became normal and the patient was completely cured. In addition to the presentation of the case, the authors discuss the causes, symptoms, course of organic hyperinsulinism and the dangers of faulty diagnosis. The importance of early diagnosis is stressed. The only course of therapy is surgical removal. 3 Hungarian, 15 Western references.

1/1

NOVAK, Janos, dr.; BRANDSTEIN, Laszlo, dr.; FABER, Viktor, dr.

Recent methods for the treatment of burns. (Preliminary report). Orv. hetil. 105 no.34:1602 23 Ag '64.

1. Magyar Nephadsereg, Egeszsegugyi Szolgalat es Orvostovabbkepzo Intezet, Sebeszeti Tanszek.

BRANDSTEIN, Laszlo, dr.; MATYUS, Lajos, dr.; LITTMANN, Imre, dr.

Active surgical treatment of phlegmasia cerulea dolens. (Thrombectomy). Orv. hetil. 106 no.7:800-801 25 Ap'65.

1. Orvostovabbkepzo Intezet, Sebeszeti Tanszek (tanszekvezeto: Litimann, Imre, dr).

BRANDSTEIN, Laszlo, dr.; FABER, Viktor, dr.; FARKAS, Vincene, dr.; TAKACS, Geza.

Experiences with the use of liquid bandage mate al in the treatment of surgical wounds. Orv. hetil. 106 no.13:604-607 28 Mr '65

1. Fovarosi Tanacs V.B.Tetenyi uti Korhaz, I. Sebeszeti Osztaly (foorvos: Littmann, Imre, dr.(; Magyar Nephadsereg Egeszsegugyi Szolgalata, Egyesult Gyogyszer- es Tapszergyar, Gyogyszer-technologiai Laboratorium (eszr. vez. Takacs, Geza, dr.).

HUNGARY

BRANDSTEIN, Laszlo, Dr, BUCSINA, Oliver, Dr, HERCZEG, Tibor, Dr, KUN, Miklos, Dr, LANYI, Ferenc, Dr, LITTMANN, Imre, Dr, MATYUS, Lajos, Dr; Institute of Postgraduate Medical Education, I. and II. Departments of Surgery (Orvostovabbkepzo Intezet, I. es II. Sebeszeti Tanszek), Budapest.

"Modern Machine Suture in Operations on the Digestive Tract."

Budapest, Orvosi Hetilap, Vol 107, No 42, 16 Oct 66, pages 1984-1986.

Abstract: [Authors' Hungarian summary] In the authors' opinion, the new Soviet suturing machines represent a great advance in surgery involving the digestive tract. The mode of application of the machines and the experiences in the course of 206 cases involving machine suturing are described and, on the basis of these experiences, the widespread use of these machines is recommended. 2 Russian, 1 Western references.

1/1

BRANDT, Aleksandr Aleksandrovich; KRASNOPEVTSEV, Yu.V., redaktor; TERESHKOVA, D.F., tekhnicheskiy redaktor

[The technique of assembling and repairing radio circuits] Tekhnika montazha i nalazhivaniia radioskhem. [Moskva] Izd-vo Moskovskogo univ., 1956. 246 p. (MIRA 10:1)
(Radio circuits)

BRANDSHTETR, I.; VOLKOV, V.V.; YERMAKOV, V.A.; ZVAROVA, T.S.; KRZHIVANEK, M.; MALY, Ya.; SU KHUN-GUY [Su Hung-kuei]

Study of the products of reactions of heavy elements with multicharge ions. Part 2: Yield of some isotopes of californium and fermium during the irradiation of thorium and uranium by O^{16}, O^{18}, and Ne^{22} ions. Radiokhimiia 5 no. 6:706-711 '63. (MIRA 17:7)

BRANDSHTETR, I.; KRZHIVANEK, M.; MALY, Ya.; SU KHUN-GUY [Su Hung-kuei]

Study of the products of reactions of heavy elements with multicharge ions. Part 1: Radiochemical determination of Ac^{225} and Ac^{226} occurring during the irradiation of uranium and thorium by nitrogen and neon ions. Radiokhimiia 5 no. 6: 699-705 '63. (MIRA 17:7)

BRANDSHTETR, I.; ZVAROVA, T.S.; KRZHIVANEK, M.; MALY, Ya.

Chromatographic separation of rare-earth elements and some actinides on cation exchangers in the presence of radioactive isotopes coprecipitating with LaF_3. Radiokhimiia 5 no. 6:694-699 '63. (MIRA 17:7)

BRANDSHTETR, I.; WAN TUN-SEN; YERMAKOV, V.A.; ZVARA, I.; IVAROVA, T.S.; KNOBLOKH, V.; KRZHIVANEK, M.; MALY, Ya.; SU KHUN-GUY [Su Hung-kuei]

Determination of the yield of some fragments in the fission of heavy nuclei induced by multicharge ions Part 1: Fission of Th^{232} induced by O^{18} and Ne^{22} ions. Radiokhimiia 5 no. 6: 715-720 '63. (MIRA 17:7)

L 22585-65 EWT(m) DIAAP

ACCESSION NR: AP5004998 S/0186/64/006/004/0479/0484

AUTHOR: Brandshtetr, I.; Zvara, I.; Zvarova, T.; Knoblokh, V.; Krzhivanek, M.; Maly, Ya.; Su, Hung-kuei

TITLE: Determination of the yields of certain fragments in the fission of heavy nuclei by multi-charged ions. II. Fission of U^{238} by Ne^{22} ions

SOURCE: Radiokhimiya, v. 6, no. 4, 1964, 479-484

TOPIC TAGS: nuclear fission, uranium, neon, isotope, charged particle

Abstract: Fission yields of certain isotopes in the mass number range of 92-179 were determined in reactions of heavy nuclei with multicharged Ne^{22} ions. When U^{238} is irradiated with Ne^{22} ions, the constituent nucleus 102^{260} is formed. When the energy of the impinging particle is 6.5 Bev, the probability of capture of only part of the bombarding nucleus does not exceed 1--15%. Comparison of the yield curves of the fission products of U^{238} with curves for U^{235} fission caused by 32.8 Bev alpha-particles, it is clear that the former curve is somewhat broader and that the maximum lies near the mass 124. This agrees with the estimation of the release of 12 neutrons in the fission act.

Card 1/2

L 22585-65
ACCESSION NR: AP5004998

3

"The authors thank G. N. Flerov for his interest in the work, N. I. Tarantin for his evaluation of the results, and Wang T'ung-seng and the group operating the cyclotron for their help in carrying out the experiments. Orig. art. has 4 graphs and 1 table.

ASSOCIATION: none

SUBMITTED: 09Jan63 ENCL: 00 SUB CODE: NP

NO REF SOV: 004 OTHER: 009 JPRS

Card 2/2

[redacted], J.

JILEK, A.; BRANSTETR, J. "More reliable demonstration of cadmium in the I. b analytic group of cations."
Chemicke Zvesti, Bratislava, Vol 6, No 3/4, Mar./Apr. 1952, p. 179

SO: Eastern European Accessions List, Vol 3, No 10, Oct 1954, Lib. of Congress

Distr: 4E2j

Oxidimetric determination of hydrazine salts [illegible] and J. Brandštetr ([illegible] Akad. [illegible]). *Chem.* [illegible] deta. of hydrazine (I) with $KMnO_4$ in [illegible] acid medium in the presence of KBr is described. As indicator [illegible] Victoria Rubin or Naphtol Blue Black 10B are recommended which are better than Indigo carmine. A potentiometric titration can be applied without colored indicator. In the presence of KBr $Ce(SO_4)_2$ can be used for the [illegible] of I and both methods produce results which are in good agreement. From the present methods for detn. of I [illegible] applying $KBrO_3$ is the most reliable. KIO_3 [illegible] reliable. Excessive $K_2Cr_2O_7$ is detd. iodometrically when I is detd. with $K_2Cr_2O_7$ in the presence of KBr from the difference. The results are [illegible] lower. [illegible]

C Z E C H

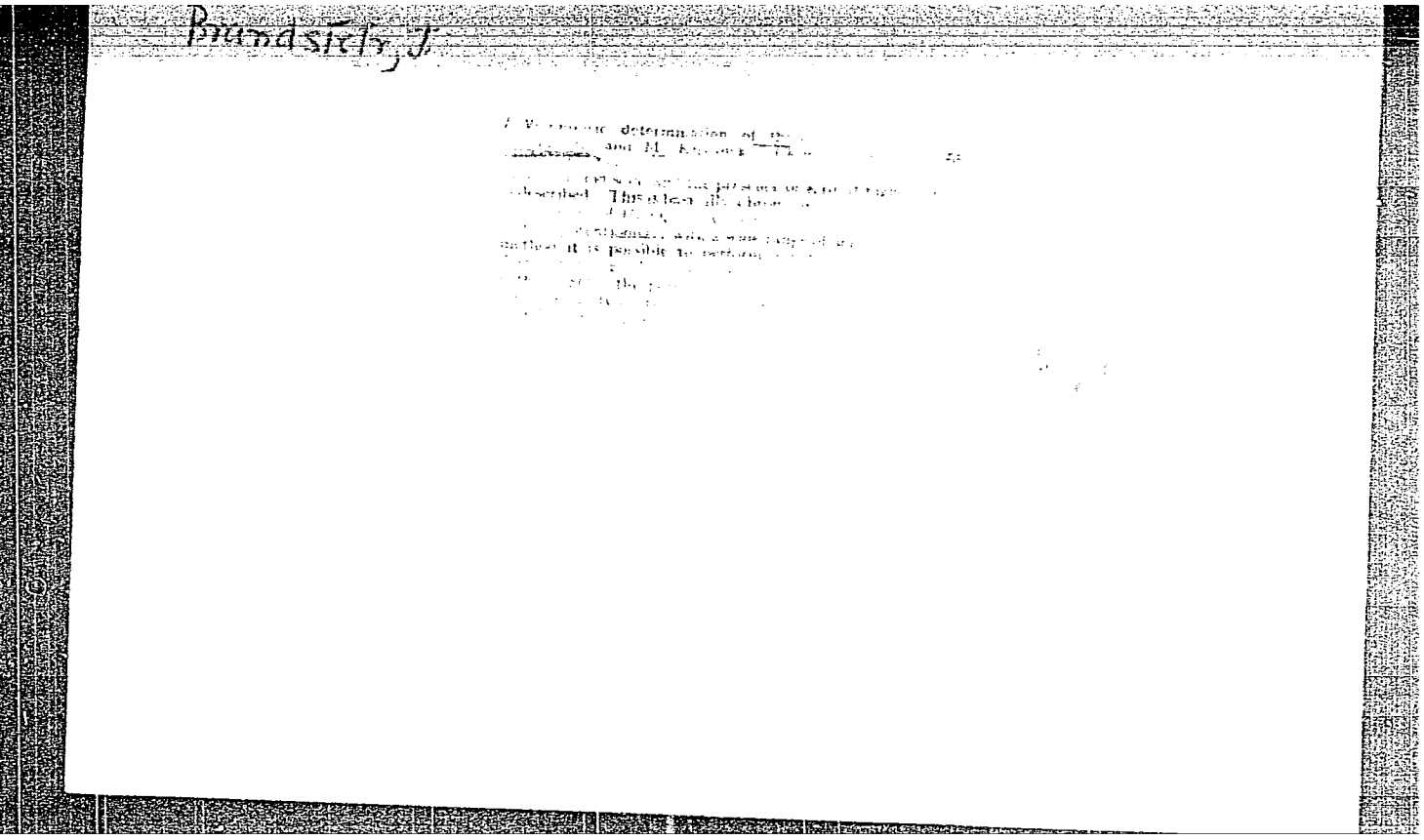
Volumetric determination of hydrazine hydrate. Jiří Brandštetr (Vojenská tech. stud., Brno, Czech.). *Chem. Listy* 48, 1251-6(1954).—Alkalimetric titration of hydrazine hydrate (I) results in values too high because NH_3 forms in the decompn. of I. It is recommended that NH_3 be detd. from the difference of alkalimetric and oxidimetric titrations. These results agree with detns. of NH_3 in I by distn. HCl (0.5 *N*) is best for the alkalimetric titration. For oximetric titration, 0.1 *N* $KMnO_4$ in dil. H_2SO_4 with KBr is preferable after completing the alkalimetric detn. Jan Micka

CZECH

572. **Detection of mercury by the reduction of alkali iodomercurates or cyanomercurates with formaldehyde.** A. Gleč and J. Brandštetr (*Chem. Listy*, 1954, 48 [5], 380–390).—The following procedure for the detection of Hg in the presence of the cations of the analytical groups I to V illustrates the use of this new and highly sensitive test. Treat the test soln., contained in a porcelain dish and acidified with HCl, with a few crystals of $KClO_3$ and heat it on a water-bath for 2 min. Disregarding any ppt., add 1 to 2 ml of a cold saturated soln. of tartaric acid, followed by an excess of 10 per cent. aq. KI and 20 per cent. aq. NaOH until the soln. is distinctly alkaline. Clarify the soln. with a few drops of a 5 per cent. soln. of KCN. If Ag is present, add a further excess of KCN. To the cool soln., add a few drops of 40 per cent. formaldehyde; the appearance of a dark grey ppt. of metallic Hg indicates the presence of Hg in the original soln. As little as 0·02 mg of Hg in 5 ml can readily be detected. Procedures for carrying out the test for Hg among cations of group I B, in the presence of Mn^{++}, Cr^{+++} and CrO_4^{--}, and in cinnabar are also described.

G. Gassner

MGT



BRANDSTETR, J

Category: Czechoslovakia/Analytical Chemistry - General Questions. G-1

Abs Jour: Referat Zhur-Khimiya, No 9, 1957, 30954

Author : Brandstetr Jiri, Kotrly Stanislaw
Inst : not given
Title : Photometric Titration

Orig Pub: Slevarenstvi, 1956, 4, No 11, 335-338

Abstract: A review. Bibliography 63 references.

Card : 1/1

BRANDSTETR, JIRI

CZECHOSLOVAKIA/ Laboratory Equipment. Apparatuses, Their Theory, Construction and Application. I

Abs Jour: Referat. Zhur.-Khimiya, No. 8, 1957, 27385.

Author : Jiri Brandstetr.

Title : Simple Laboratory Apparatus for Water Distillation and Redistillation according to Gebauer.

Abstract: The apparatus for water distillation constructed by the author consists of a retort, a cooler and equipment for automatic water supply consisting of a siphon connecting the retort with the vessel, through which water from the cooler passes. The part of the siphon which is inside the retort has double walls in order to eliminate the boiling of water within the siphon. In order to obtain redistilled water, the described apparatus is supplemented with a second distilling system.

Card 1/1

BRANDSTETR J.

CZECHOSLOVAKIA / Analytical Chemistry. Analysis of Inorganic Substances. E-2

Abs Jour: Ref Zhur-Khimiya, 1958, No 17, 57142.

Author : Vresial J., Havir J., Brandstetr J., Kotrly S.
Inst : Not given.
Title : Separation of Phosphates and Fluorides by Precipitation of their Silver Salts.

Orig Pub: Chem. listy, 1957, No 9, 1762-1764.

Abstract: Conditions of quantitative separation of large quantities of PO_4^{3-} from F^- by means of precipitation of the former as Ag_3PO_4 have been investigated. For the purpose of reducing solubility of Ag_3PO_4, and in order to improve its precipitation, it is necessary to employ sufficiently large excess of Ag^+ and an optimum pH of the solution of 4.5.

Card 1/5

CZECHOSLOVAKIA / Analytical Chemistry: Analysis of Inorganic Substances. E-2

Abs Jour: Ref Zhur-Khimiya, 1958, No 17, 57142.

Abstract: The alkalization of solution after the precipitation of Ag_3PO_4, proposed by Fennell (Ref Zhur-Khimiya, 1956, 43545) does not produce the desired effect. During the performance of this analysis, the solution is neutralized to phenolphthalein, then is treated with 1 n solution of $AgNO_3$, and after all of the Ag_3PO_4 has been precipitated out, 1-2 cc $AgNO_3$ is added. The acid, formed during the precipitation step, is neutralized with 0.3 n NaOH solution up to the point when a brown precipitate appears, followed by the dilution with water up to

Card 2/5

CZECHOSLOVAKIA / Analytical Chemistry. Analysis of Inorganic Substances. E-2

Abs Jour: Ref Zhur-Khimiya, 1958, No 17, 57142.

Abstract: method. A column packed with fresh Ag_2CO_3 of approx. 6 mm diameter and 2-2.5 cm in height is employed for the purpose. Ag_2CO_3 is obtained by treating $AgNO_3$ solution with sodium carbonate with the subsequent washing of precipitate. PO_4^{3-} is retained in the Ag_3PO_4 form at the top of the column. After the repeated water washing of the column, (using 3-5 cc portions) the effluent solutions are analyzed for F^-. This is normally being done by titration with 0.01 n $Th(NO_3)_4$ solution,

Card 4/5

CZECHOSLOVAKIA / Analytical Chemistry. Analysis of Inorganic Substances. E-2

Abs Jour: Ref Zhur-Khimiya, 1958, No 17, 57142.

Abstract: using sodiumalizarinesulfonate as an indicator (Armstrong W. D., Ind, and Eng. Chem., Analyt. Ed., 1936, 8, 384). Due to the presence of Ag^+ traces (from Ag_2CO_3) it is necessary to acidify solution with HNO_3.

Card 5/5

BRANDSTETR J.

CZECHOSLOVAKIA / Analytical Chemistry. Analysis of Inorganic Substances. E-2

Abs Jour: Ref Zhur-Khimiya, 1958, No 17, 57209.

Author : Vresial J., Havir J., Brandstetr J., Kotrly S.
Inst : Not given.
Title : Complexometrical Titration. XXXII. Indirect Complexometrical Determination of Fluorides with the Use of Divalent Lead Salts.

Orig Pub: Chem. listy, 1957, 51, No 9, 1677-1679.

Abstract: A method based on the precipitation of F^- with an excess of $PbCl_2$ in the PbClF form with the consequent complexometrical determination of the Pb^{2+} excess is described. The precipitation reaction proceeds quantitatively only in the presence of excessive quantities of both Pb^{2+} and Cl^-. In order to prevent hydrolysis of $PbCl_2$, the analyzed solu-

Card 1/4

CZECHOSLOVAKIA / Analytical Chemistry. Analysis of Inorganic Substances. E-2

Abs Jour: Ref Zhur-Khimiya, 1958, No 17, 57209.

Abstract: of 0.5 M NaCl and of exactly 150 cc of $PbCl_2$ solution of a known titre (saturated $PbCl_2$ solution is diluted by the addition of 10% water), and by neutralization with 1% solution of I, if necessary, using methyl orange as an indicator. Samples are then allowed to stand for 1 hour, then are diluted with water up to 250 cc volume, and filtered. Ten drops of 0.1% water solution of a pyrocatechin violet and a buffer solution of I (100 cc of 10% solution of I + 15 cc of 1 n HNO_3) are added to 100-150 cc of filtrate until the solution becomes distinctly blue in color and then titrated with the 0.05 M ammoniacal solution of ethylene-diaminetetraacetic acid. As an alternate indicator,

Card 3/4

CZECHOSLOVAKIA /Analytical Chemistry. Analysis of Inorganic Substances. E-2

Abs Jour: Ref Zhur-Khimiya, 1958, No 17, 57209.

Abstract: the xylenol orange (5-6 drops and 0.1% water solution) can also be employed. Toward the end of the titration it is advisable to add approx. 1 cc of the above stated buffer solution of I. The presence of sulfate ions in the concentrations not exceeding 2%, is not interfering. For Part XXXI refer to Ref Zhur-Khimiya, 1958, 32161.

Card 4/4

BRANDSTETR J.

CZECHOSLOVAKIA / Analytical Chemistry. General Problems. E-1

Abs Jour: Ref Zhur-Khimiya, 1958, No 17, 57115.

Author : Vrestal J., Havir J., Brandstetr J., Kortly S.
Inst : Not given.
Title : Complexometrical Titration. XXXIII. Basic Substances in the Complexonometry.

Orig Pub: Chem. listy, 1957, 51, No 11, 2023-2031

Abstract: A number of inorganic and organic compounds have been investigated as basic substances for the determination of titres of ethylenediaminetetraacetic acid (I) solutions. Titration of the investigated substances with I solutions was conducted employing standard methods. Each substance was titrated 5-7 times and the obtained results were subjected to the statistical treatment. The investigated compounds fall into the following

Card 1/5

CZECHOSLOVAKIA / Analytical Chemistry. General Problems. E-1

Abs Jour: Ref Zhur-Khimiya, 1958, No 17, 57115.

Abstract: groups: 1) metals and their oxides, 2) anhydrous inorganic salts, 3) inorganic salts having water of crystallization, 4) organic metal complexes, 5) dinitric salts of I. Of the first group Cu, Ni, Zn and also AnO have low equivalent weights; more suitable are Cd, Bi and PbO. The whole first group of substances yields poor control of the sharpness. From the second group of substances, $Pb(NO_3)_2$ and $PbCl_2$ are fully suitable. Substances of the third group ($ZnSO_4 \cdot 7H_2O$, $(NH_4)_2 Mg (SO_4)_2 \cdot 6H_2O$, $(NH_4)_2 Cd (SO_4)_2 \cdot 6H_2O$, and $Cd (IO_3)_2 \cdot H_2O$) are unsuitable (despite their high equivalent ..

Card 2/5

CZECHOSLOVAKIA / Analytical Chemistry. General Problems. E-1

Abs Jour: Ref Zhur-Khimiya, 1958, No 17, 57115.

Abstract: weight) since their contents of the associated water of crystalization is not constant. More suitable are substances of the fourth group (Cd and Zn-dipyridyl-rhodanides, Cd-antranylate) however, control of their composition is made difficult as a result of a loss of pyridine to the complex formation that takes place at elevated temperatures. Application of the Na_2-salt of I is complicated due to difficulties encountered in purification of the commercial grades and also due to hygroscopicity of the anhydrous compounds (dehydration of I requires considerable time). Purity of the Na_2-salt of I may be controlled only through titration. Of all the investigated substances suitable as a complexometrical standard, $PbCl_2$ was found to possess desirable characteris-

Card 3/5

CZECHOSLOVAKIA / Analytical Chemistry. General Problems. E-1

Abs Jour: Ref Zhur-Khimiya, 1958, No 17, 57115.

Abstract: tics - low solubility at low temperatures and high solubility at elevated temperatures - permitted its purification by the recrystallization. Anhydrous $PbCl_2$ is stable and is not hygroscopic, its production and control of its purity are simple. For the determination of titres of I solutions for $PbCl_2$, the eriochrome black T, pyrocatechine violet or xylenol orange can be used as indicators. Changes of color at the equivalent points in all the cases are sharp. High molecular weight of $PbCl_2$ permits a precise determination of titre in a solution of as low a concentration as 0.005 M of I. For such cases the xylinol

Card 4/5

CZECHOSLOVAKIA / Analytical Chemistry. General Problems. E-1

Abs Jour: Ref Zhur-Khimiya, 1958, No 17, 57115.

Abstract: orange has been found most suitable as an indicator. For Part XXXII refer to Ref Zhur-Khimiya, 1958, 57209.

Card 5/5

COUNTRY : Czechoslovakia E-1
CATEGORY :

ABS. JOUR. : RZKhim., No. 22 1959, No. 78260

AUTHOR : Vrestal, J., Havir, J., Brandstetr, J., and*
INST. : Not given
TITLE : Complexometric Titrations (Chelatometry). XXXIII. Principal Substances Used in Complexometry. XXXIV. Chromazurol S as an Indicator for the**
ORIG. PUB. : Collection Czechoslov Chem Commun, 22, 360-369, 632-634; No 3, 700-707 (1959)
ABSTRACT : See RZhKhim, 1958, No 17, 57115, 57137; No 22, 73701. For Communication XXXII see RZhKhim, 1958, No 24, 81349.

* Kotrly, S.; Malat, M. and Tenorova, M.; and Houda, M., Koerol, J., Bazant, V., and Pribil, R.

** Determination of Thorium, Nickel, Cerium, and Lanthanum. XXXV. The Indirect Determination of Aluminum with Xylenol Orange

CARD: 1/1 85

BRANDSTETR, J.; VRESTAL, J.

Photometric determination and separation of ruthenium by means of acetylacetone. Coll Cz chem 26 no.2:392-397 F '61.
(EEAI 10:9)

1. Institut fur allgemeine und analytische Chemie, Technische Hochschule, und Militartechnische Akademie "A. Zapotocky", Brno.

(Photometry) (Ruthenium) (Pentanedione)

BRANDSTETR, J.; KRIVANEK, M.: VRESTAL, J.

Radiometric determination of solubility product of ruthenium (4)-hydroxide. Coll Cz Chem 26 no.10:2596-2601 O '61.

1. Institut fur Chemie, Technische Hochschule und Militarakademie "A. Zapotocky", Brno.

BARANOVA, G.; BRANDSTETR, I.; DRUIN, V.; YERMAKOV, V.; ZVAROVA, T.; KRZHIVANEK, M.; MALY, Ya.; POLIKANOV, S.; SU KHUN-GUY [Su Hung-kuei]

[Production of Md^{256} through irradiation of U^{238} with Ne^{22} ions, study of some of its chemical properties] Poluchenie Md^{256} pri obluchenii U^{238} ionami Ne^{22} i izuchenie ego nekotorykh khimicheskikh svoistv. Dubna, Ob"edinennyi in-t iadernykh issl., 1962. 11 p. (MIRA 15:1)

(Mendelevium) (Uranium) (Neon)

DRUIN, V.A.; BRANDSTETR, J.; MALY, Ya.

[Measurement of the period of spontaneous fission of the fermium isotope Fm^{252}] Izmerenie perioda spontannogo deleniia izotopa fermiia Fm^{252}. Dubna, Ob"edinennyi in-t iadernykh issledovanii, 1962. 12 p. (MIRA 15:2)
(Nuclear fission) (Fermium--Isotopes)

MALY, Jaromir; BRANDSTETR, Jiri

Present state of mendelevium chemistry. Chem listy 58 no. 7: 751-762 Jl '64.

1. Institute of Nuclear Research, Rez, and Chair of Chemistry, Higher School of Technology, Brno.

CZECHOSLOVAKIA

BRANDSTETR, J; VRESTAL, J.

Chemical Institute, A.Zapotocky Technical College and Military Academy (Chemisches Institut, Technische Hochschule und Militarakademie "A.Zapotocky"), Brno - (for both)

Prague, Collection of Czechoslovak Chemical Communications, No 1, January 1966, pp 58-64

"Preparation and some properties of potassium-μ-oxobis (pentachlororuthenate)(1V)".

BRANDT, Aleksandr Aleksandrovich; RZHEVKIN, Kirill Sergeyevich; AZ'YAN, Yu.M., red.

[Construction and adjustment of radio circuits]Tekhnika montazha i nalazhivaniia radioskhem. 3. perer. i dop. izd. Moskva, Izd-vo Mosk. univ., 1965. 444 p. (MIRA 18:7)

L 01777-65 EWA(h)/EWT(1)

ACCESSION NR: AP5020244 UR/0188/65/000/004/0091/0091
621.374.4

AUTHOR: Aleksandrov, B. A.; Brandt, A. A.; Tyagunov, A. V.

TITLE: Decimeter wave frequency multiplier using gas discharge in a nonhomogeneous electric field

SOURCE: Moscow. Universitet. Vestnik. Seriya 3. Fizika, astronomiya, no. 4, 1965, 91

TOPIC TAGS: frequency multiplier, gas discharge multiplier, decimeter range frequency multiplier

ABSTRACT: A frequency multiplier is described in which a nonhomogeneous electric field is created between plates of a cylindrical capacitor with considerably differing diameters. High-frequency pulses (400 Mc) are fed to the discharge chamber through a measuring line, matching transformer, test loop, transit resonator, and coaxial line stretcher. Current thus induced contains higher harmonic components as a result of the movement of plasma electrons in the nonhomogeneous field. The current excites the resonator, which is tuned to the frequency of n-harmonics. The harmonic is picked up by the test loop and supplied to the measuring instrument.

Card 1/2

L 64777-65
ACCESSION NR: AP5020244

The loop is adjusted so that its maximum impedance corresponds to the basic frequency and its minimum impedance, to that of the harmonics. In order to create a current antinode in the resonator transfer loop, the test loop is located at a distance from the resonator equal to the even number of half-waves of separated harmonics. Argon, neon, and helium were used in the discharge tube within a wide pressure range. It was found that harmonic power and conversion efficiency depend on both the type of gas and the pressure. Optimum pressures were similar for all the investigated harmonics but different for the various gases. The best results were obtained with helium at a pressure of 1 mm Hg. The power output of the second harmonic was 2.2 w at a conversion efficiency of 5 db; that of the third harmonic, 0.55 w at 13 db. Orig. art. has: 2 figures. [KM]

ASSOCIATION: Moskovskiy gosudarstvennyy universitet; Kafedra fiziki kolebaniy (Department of the Physics of Oscillations, Moscow State University)

SUBMITTED: 01Feb65 ENCL: 00 SUB CODE: EC, EM

NO REF SOV: 001 OTHER: 000 ATD PRESS: 4078

Card 2/2

L 1271-66

ACCESSION NR: AP5020245 UR/0188/65/000/004/0092/0093
621.374.4.001

AUTHOR: Brandt, A. A.; Tyagunov, A. V.

TITLE: On the theory of the frequency multiplier in a gas discharge in a strongly nonuniform SHF field

SOURCE: Moscow. Universitet. Vestnik. Seriya 3. Fizika, astronomiya, no. 4, 1965, 92-93

TOPIC TAGS: plasma physics, gas discharge, external magnetic field, electron collision

ABSTRACT: The authors study the possibilities of the mechanism of frequency multiplication for gas discharge multipliers with a nonuniform field. The model examined is a cylindrical condenser filled with a plasma. An ac voltage $u = U_0 \sin \omega t$ is applied to the linings of this condenser. The entire system is located in an axially symmetric magnetic field directed along the axis of the condenser. In order to increase the amplitude of electron oscillations in the plasma, the magnetic field strength is chosen in such a way that the Larmor frequency of electron rotation is equal to the frequency of the applied voltage. It is assumed that an electron loses

Card 1/2

L 1271-66

ACCESSION NR: AP5020245

energy only by collisions with molecules. The stationary orbit of an electron is

$$a = \frac{en_0}{2m\gamma\omega r \ln \frac{r_2}{r_1}},$$

where e, m are the charge and mass of the electron, γ is the collision frequency, r is the distance from the center of the orbit to the axis of the system, r_1, r_2 are the radii of the internal and external conductors of the condenser. The shape of the induced current signal is calculated and an example is given with specific parameters. It is found that conversion (multiplication) efficiency is increased as pressure is reduced, since energy losses due to collisions are reduced. With operation unsing electron beams, where there are no collisions and the power of the fundamental frequency depends only on electron recoil, the multiplication efficiency of any harmonic approaches 100%. Orig. art. has: 1 figure, 2 formulas, 1 table.

ASSOCIATION: Kafedra fiziki kolebaniy Moskovskogo gosudarstvennogo universiteta (Department of Physics of Oscillations, Moscow State University)

SUBMITTED: 01Feb65 ENCL: 00 SUB CODE: ME

NO REF SOV: 002 OTHER: 000

Card 2/2

ACCESSION NR: AP4020055 S/0186/64/006/001/0026/0035

AUTHOR: Brandshtetr, I.; Wang, T'ung-hseng; Gavrilov, K. A.; Gvuzd', Ye.; Maly*, Ya.; Taube, M.

TITLE: Extraction properties of fermium and mendelevium (TBF-HNO sub 3, TBF-HCl)

SOURCE: Radiokhimiya, v. 6, no. 1, 1964, 26-35

TOPIC TAGS: extraction property, fermium, mendelevium, TBF-HNO sub 3, TBF-HCl, partition chromatography

ABSTRACT: The extraction properties of fermium and mendelevium are studied for the first time by the partition chromatography method in the system TBF-HNO_3 and TBF-HCl. The separation of heavy actinides will be better during chromatographic extraction from solutions of hydrochloric acid than from solutions of nitric acid. In the extraction column, the heavy actinides behave like analogs of the following lanthanides. In HNO_3: Fm is the analog of europium, Md is between Eu and Gd; in HCl: Fm is the analog of Dy, Md is between Ho and Dy. It follows that during extraction from solutions of HNO_3, the actinides are shifted into 5

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ACCESSION NR: AP4020055

positions and in extraction from solutions of HCl, into 2 positions according to the relationship to lanthanides having a similar subshell. "The authors are grateful to Prof. G. N. Flerov for his constant attention and discussion of results, Ya. Varkhol, Z. Borkovskaya, V. P. Perely*gin and A. S. Tishinaya for help in the experiments, cyclotron maintenance groups for conduction irradiation, Ya. Mikyl'sky*y for the silica gel kindly submitted." Orig. art. has: 8 figs.

ASSOCIATION: None

SUBMITTED: 01Sep62 DATE ACQ: 31Mar64 ENCL: 00

SUB CODE: CH, PH NO REF SOV: 006 OTHER: 009

Card 2/2

BRANDSHTETR, I.; VAN TUN-SEN; GAVRILOV, K.A.; GVUZD', Ye.; MALY, a.; TAUBE, M.

Extraction chemistry of fermium and mendelevium ($TBP-HNO_3$, TBP-HCl). Radiokhimiia 6 no. 1:26-35 '64. (MIRA 17:6)

Brandt, Andrzej

2113. Brandt, A., Kozmowski, J., and Wasiutynski, Z., On the design of lattices for minimum potential by displacing non-loaded nodes uniting three bars (in Polish), *Rozprawy Inż.* 5, 2, 157–205, 1957.

Paper is devoted to the analysis of conditions determining the location of a non-loaded node, uniting three bars of lattice of uniform strength corresponding to the minimum value of the potential of the lattice.

The basis of the present investigations is equations, derived at the beginning of the paper for partial derivatives of the potential of the lattice with respect to the lengths of two outer bars, having their ends at the given node. Further considerations include an analysis of the conditions of appearance of zero values of these derivatives, the determination of the cases of existence of extremum values of the potential, and, finally, an analysis of the variability of the potential in function of the location of the non-loaded node.

Finally, some examples of lattice design for minimum potential are given using the method of displacement of non-loaded nodes uniting three bars.

J. Czulak, Poland

BRANDT, A.

Static problems fo concrete arched bridges. p. 195.

(INZYNIERIA I BUDOWNICTWO, Vol. 14, No. 5, May 1957. Warszawa, Poland.)

SO: Monthly List of East European Accessions (EEAL) Lc. Vol. 6, No. 10, October 1957. Uncl.

BRANDT, A.

Determination of the form of prestressed beams by egalization of the stresses. Bul Ac Pol tech 8 no.5:219-224 '60. (EEAI 9:10)

1. Zespol Ksztaltowania Wytrzymalosciowego Instytut Podstawowych Problemow Techniki, PAN. Presented by Z.Wasiutynski.
(Girders) (Strains and stresses)
(Prestressed concrete)

BRANDT, A.

Some theorems on statically determinate prestressed beams designed for minimum potential. Bul Ac Pol tech 10 no.2:[77]-[82] '62.

1. Structures Design Research Group, Department of Mechanics of Continuous Media, Institute of Fundamental Technical Problems, Polish Academy of Sciences, Warsaw. Presented by Z.Wasiutynski.

WASIUTYNSKI, Zbigniew; BRANDT, Andrzej

The present state of knowledge in the field of resistance forming of structures. Rozpr inz PAN 10 no.2:307-332 '62.

1. Zaklad Mechaniki Osrodkow Ciaglych, Instytut Podstawowych Problemow Techniki, Polska Akademia Nauk, Warszawa.

BRANDT, Andrzej, mgr inz.

Application of bearings made of caoutchouc in bridge construction. Inz i bud 19 no.3:104-109 Mr '62.

1. Zaklad Mechaniki Osrodkow Ciaglych, Instytut Podstawowych Problemow Techniki, Polska Akademia Nauk, Warszawa.

BRANDT, Andrzej, dr inz.; BRENNEISEN, Andrzej, mgr inz.

Concrete bearings with plastic pivots. Inz i bud 19 no.8:309-316 Ag '62.

1. Instytut Podstawowych Problemow Techniki, Polska Akademia Nauk, Warszawa (for Brandt). 2. Politechnika, Warszawa (for Brenneisen).

BRANDT, Andrzej, dr inz.

Remarks on the grouting of cable ducts made at the 4th Congress of the International Federation of Prestressing, May 27 - June 2, 1962 in Rome and Naples. Inz i bud 19 no.11:438-439 N '62.

1. Zaklad Mechaniki Osrodkow Ciaglych, Instytut Podstawowych Problemow Techniki, Polska Akademia Nauk, Warszawa.

BRANDT, Andrzej, dr inz.; KAJFASZ, Stanislaw, doc. dr.inz.

Prestressed concrete congress in Rome and Naples. Inz i bud 19 no.12:478-482 D '62.

POTOCKI, Aleksy; DUDEK, Bernard; BRANDT, Andrzej; WASIUTYNSKI, Zbigniew

Metal and rubber bridge bearings. Polimery tworz wiel 8 no.10:382-392 0'63.

1. Katedra Technologii Chemicznej, Zaklad Technologii Kauczukow i Gumy, Politechnika, Gdansk (for Potocki and Dudek). 2. Instytut Podstawowych Problemow Techniki, Polska Akademia Nauk, Warszawa (for Brandt and Wasiutynski).

WASIUTYNSKI, Zbigniew (Warszawa); BRANDT, Andrzej (Warszawa); POTOCKI, Aleksy (Gdansk); DUDEK, Bernard (Gdansk)

Results of experimental research on rubber bridge bearings. Archiw inz lad 9 no.1:53-71 '63.

BRANDT, Andrzej

A theorem on forming the design of prestressed beams.
Rozpr inz PAN 11 no. 4: 559-566 '63.

1. Zaklad Mechaniki Osrodkow Ciaglych, Instytut Podstawowych Problemow Techniki, Polska Akademia Nauk, Warszawa.

BRANDT, Andrzej

Examples of designing preetressed beams. Rozpr inz PAN 12 no.1: 101-113 '64

1. Zaklad Mechaniki Osrodkow Ciaglych, Instytut Podstawowych Problemow Te:hniki, Polska Akademia Nauk, Warszawa.

BRANDT, A.A.; SHEVCHENKO, V.Ya.

Method for measuring the coercitive field of ferroelectrics. Vest. Mosk. un. Ser.3:Fiz., astron. 19 no.5:90-92 S-O '64. (MIRA 17:12)

1. Kafedra fiziki kolebaniy Moskovskogo universiteta.

BRANDT, Andrzej, dr inz.

Remarks on the strength increase of concrete with time.
Inz i bud 21 no.11:396-399 N '64.

1. Institute of Basic Technical Problems of the Polish Academy of Sciences, Warsaw.

BRANDT, Andrzej (Warsaw)

Testing concrete creeping in a nonreinforced beam subject to bending. Archiw inz lan 11 no.11:87-93 '65.

1. Submitted September 14, 1964.

BRANDT, Andrzej; KOWALCZYK, Ryszard (Warsaw)

Outlines of a synthesis of the topics of research works carried on in the field of concrete in Poland in 1963. Archiw inz lad 10 no.4:478-484 '64.

BRANDT, A-A.

FD-1503

USSR/Physics - Dielectric permeability

Card 1/1 : Pub. 129-6/18

Author : Brandt, A. A., and Shakhparonov, M. I.

Title : Connection between the dielectric permeability of solutions and deviations of properties of solutions from the ideal

Periodical : Vest. Mosk un. Ser. fizikomat. i yest. nauk, 9, No 6, 45-50, Sep 54

Abstract : The dependence of dielectric permeability on concentration of solutions CCl_4-CH_3OH, O-C_8H_{10}-CH_3OH, (CH_3) CO-$CHCl_3$, C_6H_6- $(C_2H_5)_2O$ is studied. Results proved that this dependence is closely related to the deviation of properties of solutions from ideal ones. An explanation is attempted by studying structural differences of ideal and nonideal solutions. One Soviet and two foreign references.

Institution :

Submitted : December 18, 1953

BRANDT, A. A.

AUTHOR: Brandt, A.A.

120-5-15/35

TITLE: A Method of Measuring Permittivity of Dielectrics at Decimetric Wavelengths. (Metod izmereniya dielektricheskoy pronitsayemosti dielektrikov na detsimetrovykh volnakh)

PERIODICAL: Pribory i Tekhnika Eksperimenta, 1957, No.5, pp. 63 - 66 (USSR)

ABSTRACT: A sample-holder and adaptor to coaxial line has been developed which enables permittivity of solids and liquids to be measured with an error of 3% in the range of wavelengths 40 cm to 500 cm. The holder consists of two discs 28 mm in dia. separated at a distance of 5 mm by a glass ring 20 mm dia. In a tapered transition fitted to the end of the coaxial measuring line, the inner conductor stops short of an end plate which closes over the outer conductor. Into the axial space so formed the sample holder is a close fit and is secured by a screw in the end-plate. The use of the glass plate and the axial mounting confers two advantages: the field through the sample space is uniform and its "empty" capacitance is thus calculable; the parasitic capacitance due to fringing of the field is not altered by the introduction of the dielectric. Three methods are described for measuring the parasitic capacitance: by subtracting the calculated value of the "empty" capacitance from

Card1/2

A Method of Measuring Permittivity of Dielectrics at Decimetric Wavelengths. 120-5-15/35

the apparent terminating capacitance measured by null displacement of the s.w.r. indicator; by subtracting the measured values of terminating capacitance of the uncovered transition and fully assembled apparatus; by measuring the real parts of the permittivities of two substances of known values. A sample diameter of 20 mm is suitable for permittivities not greater than 50, but for values of the order of 1 000 the diameter should not be greater than about 4 mm. There are 5 figures and 8 Slavic references.

ASSOCIATION: Physics Department MGU imeni M.V. Lomonosov. (Fizicheskiy fakul'tet MGU im. M.V. Lomonosova)

SUBMITTED: March 19, 1957.

AVAILABLE: Library of Congress

Card 2/2

BRANDT, A. A.

AUTHOR: Brandt, A.A. 120-6-20/36

TITLE: Method of Measuring the Dielectric Constant of Dielectrics in the Range of Wavelengths of 40 to 5 cm (Metod izmereniya dielektricheskoy pronitsayemosti dielektrikov v diapazone voln 40÷5 cm)

PERIODICAL: Pribory i Tekhnika Eksperimenta, 1957, No.6, pp. 82 - 85 (USSR).

ABSTRACT: Metering methods with coaxial lines described in literature so far (Refs. 7-9) require the construction of special metering lines and, in most cases, the evaluation of the metering results is very complicated. In this paper, a method is described of measuring the complex dielectric constant of liquid and solid dielectrics in the wave range 40 to 5 cm. The dielectric is placed along the entire length of the line coaxially with a central conductor. Fig.1, p.83, shows the cross-section of such a line; in the case of a solid dielectric, the specimen is in the form of a tube which fits as a sleeve over the central wire, whilst in the case of liquid dielectrics, the dielectric is filled into the volume enclosed between the central wire and an insulating tube made up of suitable material. The external

Cardl/2 radius of this tube must be such that the indicator probe can

Method of Measuring the Dielectric Constant of Dielectrics in the Range of Wavelengths of 40 to 5 cm.

be fitted into the line to the required depth. If such a line is short-circuited at one end and fed from the other by an oscillator, the distribution of the field potential in the standing wave permits studying the electrical characteristics of the investigated dielectric. The respective formulae are derived and brief information is given on the apparatus. The maximum metering error for a reading accuracy on the metering line of 0.05 mm is 5% for the real part of the permeability and 10% for the absorption coefficient.
There are 2 figures and 9 references, 5 of which are Slavic.

ASSOCIATION: Physics Department MGU imeni M.V. Lomonosov (Fizicheskiy Fakul'tet MGU im. M.V. Lomonosova)

SUBMITTED: March 19, 1957.

AVAILABLE: Library of Congress

Card 2/2

BRANDT, A. A.

Brandt, A.A. [Moskovskiy gosudarstvennyy universitet (Moscow State University)] Methods of Measuring the Dielectric Constant of Liquid and Solid Dielectrics Over a Wide Range of Frequencies

(The Physics of Dielectrics; Transactions of the All-Union Conference on the Physics of Dielectrics) Moscow, Izd-vo AN SSSR, 1956. 245 p. [illegible] errata slip inserted

This volume publishes reports presented at the All-Union Conference on the Physics of Dielectrics, held in Dnepropetrovsk in August 1956 sponsored by the "Physics of Dielectrics" Laboratory of the Fizicheskiy [illegible] Institut im. P.N. Lebedev AN SSSR (Physics Institute imeni Lebedev of the AS USSR), and the Electrophysics Department of the Dnepropetrovskiy gosudarstvennyy universitet (Dnepropetrovsk State University).

S/112/59/000/013/008/067
A002/A001

Translation from: Referativnyy zhurnal, Elektrotekhnika, 1959, No. 13, p. 12, # 26245

AUTHOR: Brandt, A. A.

TITLE: Methods of Measuring the Dielectric Constant of Liquid and Solid Dielectrics in a Wide Range of Wavelengths

PERIODICAL: V sb.: Fiz. dielektrikov, Moscow, AN SSSR, 1958, pp. 161-167, Discussion, p. 180

TEXT: The author describes two methods of measuring the complex dielectric constant of solid and liquid dielectrics in the range of lengths λ = 500-5 cm. For λ = 500-40 cm, a coaxial measuring line is used, loaded at one end by a special measuring capacitor with the dielectric to be investigated. The diameter of the specimen is 3-20 mm (the smaller, the greater the dielectric constant). For λ = 40-5 cm, a coaxial measuring line is used with the dielectric, which is arranged concentrically in respect to the internal conductor and is distributed

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S/112/59/000/013/008/067
A002/A001

Methods of Measuring the Dielectric Constant of Liquid and Solid Dielectrics in a Wide Range of Wavelengths

over the entire length of the measuring line. The error in measuring the real part of the dielectric constant is ~ 3%, that of the imaginary part is 10%.

ASSOCIATION: MGU

Ye. B. Z.

Translator's note: This is the full translation of the original Russian abstract.

Card 2/2

SOV/120-58-6-19/32

AUTHORS: Brandt, A. A. and Kurtmulayev, R. Kh.

TITLE: A Study of Fast Ionisation Processes in the Gas Current behind a Shock Wave (Issledovaniye bystrykh ionizatsionnykh protsessov v gazovom potoke za udarnoy volnoy)

PERIODICAL: Pribory i tekhnika eksperimenta, 1958, Nr 6, pp 94-97 (USSR)

ABSTRACT: In studying the propagation of shock waves in gases, one often has to measure ionisation processes whose duration is of the order of 100 to 300 μs. In the usual methods (Ref.1) these processes are measured using probes. However, the use of probes involves serious difficulties. The method described in this paper involves measurements of the current of ionised gas, without upsetting the gasodynamic characteristics, by passing the gas along the axis of a cylindrical high frequency resonator. The resonator is illustrated in Fig.1. The method may be used to measure the coefficients of thermal ionisation of a gas in the current behind a shock wave propagated with a velocity of about 3 km/sec. The coefficient may be measured with an accuracy of about 10% at a number of points, uniformly distributed in space. The resonator vibrations of type E_{olo} are excited by a klystron generator. If the diameter of the resonator is greater than the diameter

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A Study of Fast Ionisation Processes in the Gas Current behind a Shock Wave

of the gas channel, then the electric field is approximately uniform within the limits of the gas channel. The motion of a charged particle of mass m and charge e which is under the action of the field E of the resonator is described by:

$$m\ddot{z} = eE + F \qquad (1)$$

where z is the distance along the axis of the resonator and F is the analogue of friction and is due to collisions between the charged particle and the gas molecules. If one assumes that the particle loses all its momentum on collision, we have:

$$F = -m\nu\dot{z} \quad , \qquad (2)$$

where ν is the frequency of the collisions. On solving Eq.(1) when E varies sinusoidally, we find that:

A Study of Fast Ionisation Processes in the Gas Current behind a Shock Wave

$$\left.\begin{aligned} \sigma_r &= \frac{ne^2}{m} \times \frac{\nu}{\omega^2 + \nu^2} \\ \sigma_i &= -\frac{ne^2}{m} \times \frac{\omega}{\omega^2 + \nu^2} \end{aligned}\right\} \qquad (3)$$

which give the values of the real and the imaginary parts of the complex conductivity due to the motion of the charged particles. The concentration of charged particles n is then given by:

$$n = -\frac{m\omega}{e^2}\left(\sigma_i + \frac{\sigma_r^2}{\sigma_i}\right) . \qquad (4)$$

Since the mass of an ion is greater by three orders of magnitude than the mass of an electron, n may be looked upon as practically equal to the electron concentration. From the above equations it is clear that the ionisation of the gas leads to a change in the dielectric constant of the volume

A Study of Fast Ionisation Processes in the Gas Current behind a Shock Wave

of the resonator, which is filled with the gas and also to the appearance of additional losses. The dependence of the real and imaginary parts of the conductivity on the resonator parameters is given by Eqs. (6) and (5) and when these are substituted in Eq.(4) the electron concentration n may be found. There are 3 figures and 2 references, of which 1 is Soviet and 1 is English.

ASSOCIATION: Fizicheskiy fakul'tet MGU (Physics Department, Moscow State University)

SUBMITTED: June 3, 1957.

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~~9(4)~~ 9.1200 SOV/155-58-6-32/36

AUTHORS: Brandt, A.A., Pashin, Yu.N., Petelin, V.G.

TITLE: Investigation of the Focusing Properties of a Zone Antenna in the Range of Microwaves

PERIODICAL: Nauchnyye doklady vysshey shkoly. Fiziko-matematicheskiye nauki, 1958, Nr 6, pp 201-207 (USSR)

ABSTRACT: In the paper the authors report on the results of an experimental investigation of the focusing properties of a zone or diffraction antenna. The antenna is produced of metallic as well as of dielectric zones which are calculated on the basis of the laws of geometric optics. The investigations were carried out with the wave length of 3 cm and show that the considered antenna possesses good focusing properties and can be applied for practical purposes. Contrary to the parabolic antenna the zone antenna has a selective effect; in its focus it concentrates the monochromatic component of the "white" radiation falling upon it.

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Investigation of the Focusing Properties of a Zone Antenna in the Range of Microwaves SOV/155-58-6-32/36

There are 6 Soviet references.

ASSOCIATION: Moskovskiy gosudarstvenny universitet imeni M.V. Lomonosova (Moscow State University imeni M.V. Lomonosov)

SUBMITTED: September 28, 1958

Card 2/2

BRANDT, Aleksandr Aleksandrovich. Prinimal uchastiye RZHEVKIN, K.S., AZ'YAN, Yu.M., red.; GEORGIYEVA, G.I., tekhn.red.

[Arrangement and tuning of radio circuits] Tekhnika montazha i nalazhivaniia radioskhem. Izd.2., dop. Moskva, Izd-vo Mosk.univ., 1960. 353 p. (MIRA 13:5)

1. Moskva, Leninskiye gory, Fizicheskiy fakul'tet Moskovskogo gosudarstvennogo universiteta (for Brandt).
(Radio circuits)

BRANDT, A.A.

Using the Vavilov-Cherenkov effect in measuring the dielectric permeability of ferroelectric substances. Vest.Mosk.un.Ser. 3:Fiz,astron. 17 no.4:92 Jl-Ag '62. (MIRA 15:9)

1. Kafedra teorii kolebaniy Moskovskogo universiteta.
(Ferroelectric substances--Electric properties)

BRANDT, Aleksandr Aleksandrovich; KOSTIYENKO, A.I., red.; PLAKSHE, L.Yu., tekhn. red.

[Study of dielectrics at superhigh frequencies] Issledovanie dielektrikov na sverkhvysokikh chastotakh. Moskva, Fizmatgiz, 1963. 403 p. (MIRA 16:5)

(Dielectrics)

L 15252-65 EEC(b)-2/EPA(s)-2/EWT(1)/EWT(m)/EEC(t) Pl-4/Pt-10 ASD(a)-5/
AS(mp)-2/AFETR/ESD(gs)/ESD(t)/IJP(c) GG/RM

ACCESSION NR: AP4047867 S/0188/64/000/005/0090/0092

AUTHOR: Brandt, A. A.; Shevchenko, V. Ya.

TITLE: A method for measuring the coercive field of ferroelectrics

SOURCE: Moscow. Universitet. Vestnik. Seriya 3. Fizika, astronomiya, no. 5, 1964, 90-92

TOPIC TAGS: dielectric permeability, alternating field, coercive field, ferroelectric, triglycine sulfate

ABSTRACT: A new method is presented for measuring the coercive field of ferroelectrics in a wide frequency range of the polarizing field. The same method is applied to the investigation of the anomalous changes in dielectric permeability during polarization. The sample, in a condenser, is subjected simultaneously to two fields, a polarizing field of low frequency provided by one generator and a low voltage field from the sound frequency generator connected in the sample circuit. When a specimen is polarized, its dielectric permeability changes, thus inducing corresponding changes in the capacity of the ferroelectric condenser. The changes in the transmission coefficient of a circuit consisting of the condenser and a resistance, as a function of capacitance for two values of resistance

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and frequency are shown in Fig. 1 of the Enclosure. It is seen from Fig. 1 that when $wRC_s \leq 1$, changes in capacitance of a ferroelectric condenser cause a proportional variation in the amplitude of the applied voltage of frequency w. If a ferroelectric is polarized in a linearly variable field $E(f)=Kt$, then when the value of the amplitude of the "probing" voltage attains a maximum, that value will correspond to the value of the coercive field of a ferroelectric and $E_K = E(t_K) = Kt_K$. This method is then applied to the measurement of the coercive field of triglycine sulfate for different frequencies of the linearly varying voltage in the frequency range 10^{-5}-10^2 c/s. The dependence of the coercive field on the time derivative indicates that the coercive field of ferroelectrics is not a uniquely defined magnitude and depends on the field and its duration in all frequency ranges. Moreover, there is a definite influence of the electrodes on the measurement of the coercive field. A brief discussion of different types of electrodes is included. Orig. art. has: 3 figures and 6 formulas.

ASSOCIATION: Kafedra fiziki kolebaniy Moskovskogo universiteta (Department of Vibration Physics, Moscow University)

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